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## The Distal Predilection of Small Bowel Neuroendocrine Tumors

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**BACKGROUND:** The small bowel (SB) is the most common site of neuroendocrine tumors (NETs) of the GI tract. These are described as being predominantly jejunoileal, but their exact locations within the SB have not been well defined. We sought to prospectively determine the spectrum of SBNET locations.

**METHODS:** Patients undergoing exploration for SBNET primaries had measurement of bowel length, tumor locations, and resection length recorded. Correlations of clinicopathologic factors were performed, and analysis done utilizing Welch's t-test, Chi-Square test and the Kaplan-Meier method.

**RESULTS:** Measurements were recorded in 104 patients, 88 of whom had complete information. Multifocal tumors (MTs) were found in 61 (59%) and unifocal (UTs) in 43 (41%) patients. Only 1/88 patients had a tumor within 100 cm of the ligament of Treitz (LT) while 62/88 (71%) had tumors within 100 cm of the ileocecal valve (ICV). No MTs were found within 100 cm of LT while 34/52 (65%) patients had all (8) or at least one tumor (26) located within 100 cm of the ICV. MTs had a mean resection length of 110 cm vs. 63 cm for UTs ( $p < 0.01$ ). Seventy-eight percent of UTs (28/36) were within 100 cm of ICV. Tumors occurring only between >100cm from LT and ICV were seen in 25/88 (28%) patients. The mean SB length was 513 cm and was independently associated with patient height ( $p = 0.01$ ).

**CONCLUSION:** The majority of SBNETs are multifocal and the most common location for primary tumors is within 100 cm of the ICV. SBNETs are less frequent as one moves proximally in the small bowel, which may result from anatomic differences in enterochromaffin cell density, hormonal factors or environmental exposures in the distal SB. Further studies are needed to elucidate the exact characteristics of the distal SB that drive this increase in prevalence.